

Basic Genetics Guided Notes

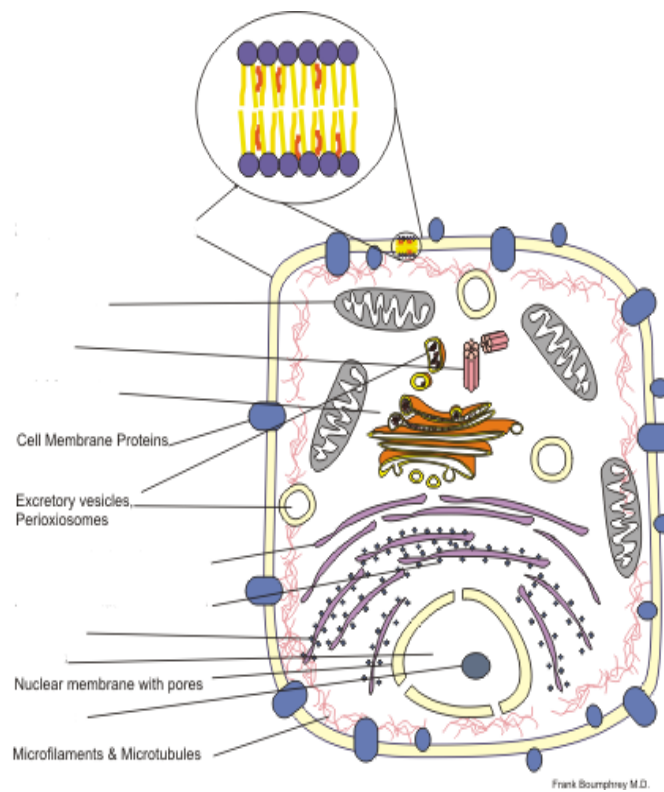
Cells do two things:

- 1.
- 2.

_____ cells are single-celled organisms.

_____ cells are multi-celled organisms.

Identify the various parts of an animal cell:



Define:

mitochondria:

endoplasmic reticulum:

Golgi apparatus:

lysosomes:

ribosomes:

nucleus:

DNA is an acronym for _____

The four types of nitrogenous bases are:

1.

2.

3.

4.

The purines are _____ and _____.

The pyrimidines are _____ and _____.

_____ and _____ always bond together.

_____ and _____ always bond together.

Outline DNA replication:

Variation in hereditary material comes from:

Protein synthesis is important because:

The genetic code is the _____
_____ of the DNA molecule.

Codons code for:

1.

2.

3.

A _____ us a portion of a DNA molecule.

Transcription is:

Translation is:

Chromatin is:

A chromosome is:

Draw and Label the parts of a chromosome:

The telomere is:

The haploid number is:

The diploid number is:

Homologous chromosomes are: The location of a gene on a chromosome is called the _____ (singular) or _____ (plural).

Alternate versions of the same gene are _____.

If someone has the same version of an allele they are _____.

If someone has different version of an allele they are _____.

Mitosis is:

Meiosis is:

_____ is the exchange of DNA between homologous chromosomes.

How many replicated cells are there at the end of mitosis?

Are they diploid or haploid?

How many replicated cells are there at the end meiosis?

Are they diploid or haploid?

A _____ results in an abnormal number of chromosomes in a cell.

Some examples are:

- 1.
- 2.
- 3.

Define the following:

Gene:

Allele:

Genotype:

Phenotype:

Dominant Allele:

Recessive Allele:

Co-dominant Alleles:

Homozygous Alleles:

Homozygous Dominant Alleles:

Homozygous Recessive Alleles:

Heterozygous Alleles:

Characteristics of complex traits

- 1.
- 2.
- 3.

Characteristics of complex traits

- 1.

2.

3.

4.

5.

_____ is where one gene has multiple effects.

Using Mendel's ideas, create a Punnet Square for the mating of the following individuals: 1) BB with bb 2) Bb with Bb
3) Bb with BB

For each pairing: what percentage of individuals are BB, Bb, and bb?

Mendel's Law of Segregation states:

Mendel's Law of Independent Assortment states:

The difference between autosomal dominant traits and autosomal recessive traits is:

Examples of autosomal dominant traits are:

1.

2.

Examples of autosomal recessive traits are:

1.

2.

3.

Sex-linked traits:

1.

2.

3.